



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/028,907	12/28/2001	Volker Frenz	207676US0	2816
22850	7590	03/16/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			METZMAIER, DANIEL S	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 03/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/028,907

Applicant(s)

FRENZ ET AL.

Examiner

Daniel S. Metzmaier

Art Unit

1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-8 and 15-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 15-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-2, 5-8 and 15-21 are pending. Claims 3-4 and 9-14 have been canceled.

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on 29 Dec. 2000. It is noted, however, that applicant has not filed a certified copy of the German 10065252.2 application as required by 35 U.S.C. 119(b).

Claim Objections

2. Claim 6 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 6 sets forth: "A water-absorbent compositions containing water-insoluble water-swellaable hydrogels as claimed in claim 1." Claim 1 sets forth: "Water-insoluble water-swellaable hydrogels" having specific "absorbency Under load" properties. Claim 1 clearly sets forth a water-absorbent "composition" and therefore claim 6 cannot be said to be further limiting of claim 1.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1712

4. Claims 18 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 18 is dependent on canceled claim 10 and is therefore indefinite as to the metes and bounds of the subject matter sought to be patented.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1, 5-6, 15-16 and 18-21 are rejected under 35 U.S.C. 102(a) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Dentler et al. WO 00/22017, as evidenced by 6,565,768 as a translation. See esp. Beispiel 8 and 9, noting page 17, line 12 - page 18, line 40 as to the tests used in the Beispiel: or using U.S. 6,565,768 as a translation, esp. Inventive Examples 8 and 9, noting column 11, line 26 - column 12, line 20 as to the tests used in the inventive examples. Furthermore, see WO '217 (page 26, lines 31-38) and US '768 (column 17, lines 53-61), wherein the gels are characterized as having high gel strength high gel permeability, and low extractables content. WO '217 and US '768 further teaches therein the gels are "very useful as absorbents for water and aqueous fluids, especially bodily fluids, for example urine or blood, for example in hygiene articles such as, for example, infant and adult diapers, sanitary napkins, tampons and the like."

The properties and the characterization of the coating would have been inherent to the hydrogel compositions disclosed in the WO '217 and US '768 references.

Regarding the interpretation of the claims, claim 1 sets forth "hydrogels coated with steric or electrostatic spacers". The steric spacers set forth in claim 1 are bentonites, zeolites, active carbons or silicas. The electrostatic spacers set forth in claim 1 are cationic polymers. The WO '217 and US '768 references (see example 4, example 8 and 9, particularly the recitation of KYMENE 5557H®, which is specifically characterized (example 4, column 14, line 46 or 47) as a "cationic [cationic] polyamidoamine resins". Said resins are commercially available as polyamide-polyamine-epichlorohydrin type resins. Said resins are addition products of

Art Unit: 1712

epichlorohydrin with amidoamines (see claim 15, last species). Said cationic polymers are necessarily at least in the surface coating of the WO '217 and US '768 hydrogels or are at least surface coated (example 9) with silica.

To the extent the WO '217 and US '768 references differ in that a specific hygienic article is not exemplified in the WO '217 and US '768 references, said articles are clearly contemplated (WO '217; page 26, lines 31-38, and US '768; column 17, lines 53-61). It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ the hydrogels of the WO '217 and US '768 references in the articles disclosed therein as an obvious intended use for said compositions.

9. Claims 2, 7-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dentler et al. WO 00/22017, as evidenced by 6,565,768 as a translation, as applied to claims 1, 5-6, 15-16 and 18-21, above, and further in view of Goodman et al, 5,599,335, and Melius, 5,601,542. The especially pertinent portions of Dentler et al. are pointed out in the preceding paragraph. While Dentler et al. do not specifically disclose that their hydrogels have the SFC and Vortex Time values recited in claim 2 herein, it would have been obvious to one skilled in the art at the time applicants' invention was made to control the parameters of the "process of preparing" of Dentler et al. to obtain hydrogels having an SFC value of at least 30 X 100 cm³ sec/g recommended by Goldman et al. (column 11, lines 13-53, esp. lines 44-47) and a Vortex Time of less than about 45 seconds recommended by Melius et al. (column 2, line 53, noting also column 15, line 30 column 16a line 21 as to the test).

To the extent claims 7 and 8 to the use of foams or fiber matrices differ from the prior art and are not specifically set forth in the WO '217 and US '768 references, Goodman et al (column 21, lines 25 et seq) teaches the use of fibrous materials in the formation of an article, which would result in a matrix. Furthermore and to the extent the WO '217 and US '768 references differ in the article structure set forth in claim 17, Goodman et al (figure 1 and column 31, lines 51 et seq) teaches conventional methods of making a absorbent article with a topsheet and backsheet.

These references are combinable because they teach hydrogels and their use in absorbent articles. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to employ fibrous matrix forming materials for the advantage of structure and/or enhances capillary forces or employ conventional absorbent article forming topsheet and backsheet shown in the Goodman et al reference as conventional.

Response to Arguments

10. Applicant's arguments filed December 16, 2003 have been fully considered but they are not persuasive.

11. Applicants (page 8) assert steric spacers that are embodied in the Dentler et al reference are compounds that are react with the carboxyl groups on the surface of the hydrogel particles and include polyamidoamines reacted with epichlorohydrin.

Applicants further assert post cross-linking is not disclosed in the reference. Applicants' comments are inconsistent with the claims wherein the steric spacers are bentonites, zeolites, active carbons or silicas. Alternatively, the electrostatic spacers set forth in

Art Unit: 1712

claim 1 are cationic polymers. The claims require only one or the other. Furthermore, (example 4) teaches treating the hydrogel of example 2 with a cationic polymer.

This has not been deemed probative since it does not distinguish and/or refute the fact that Dentler et al (examples 4, 8 and 9) treat hydrogel material with cationic polymers and/or silica, which is clearly within applicants claimed subject matter as a steric spacer or electrostatic spacer (see claim 1). Claim 1 at least reads on WO '217 as evidenced by US '768 in the treatment of a hydrogel with silica and/or cationic polymer. The function of silica as a steric spacer or the cationic polymer as an electrostatic polymer would be expected to have been inherent.

To the extent that applicants are asserting the treatment with a metal ion somehow distinguishes the claims, said treatment is not excluded by the claims.

12. Applicants (pages 9 and 10) assert that while the Goodman et al reference teaches hydrogels having the properties of claim 2, it does not disclose coated hydrogels or the exact structure of the hydrogels. Applicants' claims lack said exact structure, which by said fact supports the conclusion that said structure would have been obvious to one having ordinary skill in the art at the time of applicants' invention.

Furthermore, Goodman et al and Melius teach recommended parameters and desired properties for hydrogels. While Dentler et al do not teach said properties, it would have been obvious to one skilled in the art at the time applicants' invention was made to control the parameters of the "process of preparing" of Dentler et al. to obtain hydrogels having an SFC value of at least $30 \times 100 \text{ cm}^3 \text{ sec/g}$ recommended by Goldman et al. (column 11, lines 13-53, esp. lines 44-47) and a Vortex Time of less than

Art Unit: 1712

about 45 seconds recommended by the Melius et al reference. Applicants have not shown said properties of an anticipated or obvious composition to be different, unexpected and/or unobvious.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Win et al, 5,667,635, is further cited merely to support the well known fact that KYMENE 557H® is a polyamido-polyamine-epichlorohydrin type cationic resin.

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

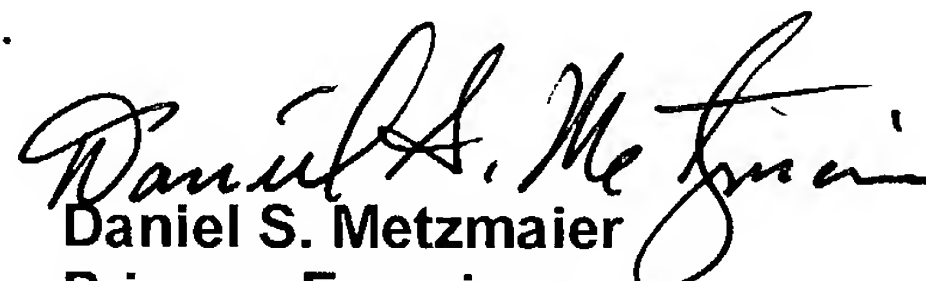
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1712

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM